

THE HEAT CENTER INITIATIVE AT FORT BENNING
(FOUO)

INFORMATION PAPER

MCXB-E
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SUBJECT: The Heat Center Initiative at Fort Benning

1. Purpose: Review of Concept
2. Facts:

a. Heat stroke, Exercise Associated Hyponatremia, and other Heat Related Illnesses (HRIs) are potentially tragic and largely preventable causes of death and disability at Ft. Benning and other hot climate training areas. This spectrum of illnesses has significant negative impact on training and poses substantial risk to the medical readiness of trainees and Soldiers.

b. Best practices for prevention and management of these disease processes have been developed in many iterations over the years at Ft. Benning, but they have yet to achieve sustainability. Regular staffing and Command changeovers have led to recurrent lapses in institutional memory, and an unfortunate “tragedy loop” has developed. This has been demonstrated by a reoccurring pattern of a tragic death, followed by a renewed interest in management and prevention, and a period of improved performance that subsequently dwindles as institutional memory fades until another Soldier death occurs. Following the preventable death of a young officer in 2016, clinicians at Martin Army Community Hospital (BMACH) have once again become heavily engaged in efforts to provide the best possible guidance and clinical care regarding HRI. This effort has been highly successful over the last two years through the development of comprehensive heat management protocols (The Benning Protocols). Unfortunately, all similar historic efforts to achieve the same goal have been lost through time and turnover. The required solution calls for an independent and sustainable organization dedicated to preventing, researching, and caring for hot weather environmental injuries.

c. The “Heat Center” initiative aims to end this tragedy loop by creating a sustainable clinical resource center for HRI within the DoD. By focusing on excellence in (1) Education/Prevention, (2) Management, and (3) Research, we aim to end preventable death and disability from HRI, and become a reliable resource for best practices throughout the DoD.

(1) Education/Prevention – Our 2018 Heat Forum included speakers from as far as the United Kingdom and guests from throughout TRADOC and elsewhere. Planning for our 2019 Heat Forum is already in progress. Our Heat Forums provide an invaluable opportunity to bring medical and non-medical leaders together to review current guidelines and develop collaborative best-practices. Clinicians from Martin Army Community Hospital also provide regular outreach to units for refresher training. Future state should include a tangible location through which anyone coming to Ft. Benning can in-process. It should serve as a resource for any leader to obtain advice and education on HRI mitigation appropriate to their needs. The

most up-to-date versions of The Benning Protocols would be freely available on the Heat Center website, along with summaries of current research projects, clinical questions for future research, and links to partner organizations.

(2) Management – Ft. Benning has developed aggressive clinical protocols from point of injury through disposition (The Benning Protocols). Our ambulances are uniquely equipped with point of care sodium testing, and our Emergency Department (ED) is the only one within the DoD using endovascular cooling for severe exertional heat stroke. To date in 2018, the ED has already seen over 233 cases of HRI including 50 exertional heat strokes.

Remarkably, we have had no soldier deaths here in over two years, despite several soldiers presenting with core temperatures greater than 109°F. Future state might include administrative support to maintain our Heat Tracker and coordinate with Preventive Medicine and USPHC reporting requirements. Additional concepts include a “Heat Hotline” through which any of our partners downrange or elsewhere could reach a clinical subject matter expert 24/7 for questions or guidance if faced with an emergent case of HRI.

(3) Research - Our sheer volume of cases means that we have an opportunity to do exceptionally meaningful clinical readiness research. The American Legion of Georgia already granted us our first funding in support of this initiative and is eager to grant more next year. We have begun the process of establishing an Office for Clinical Research Support (OCRS).

Passionate researchers from organizations such as USUHS, USARIEM, USAMMMA, the UK Institute for Naval Medicine, and others have already expressed interest in partnering with Ft. Benning because we have the numbers to power studies that will advance the state of medicine, improve operational readiness, and save the lives of Soldiers. The OCRS will allow us to better facilitate such partnerships, streamline the administrative requirements, and turn Ft. Benning into a mecca for heat and other clinical readiness research. Several large-scale heat stroke studies are already in progress, which will significantly improve military readiness regarding HRI. In addition, mastering mitigation and management strategies for HRI has positive implications for establishing and maintaining military superiority in inhospitably hot environments. In support of this crucial readiness component, the future state of the “Heat Center” should include physical clinic space to evaluate and manage Soldiers and trainees suffering HRIs. Researchers from multiple organizations have expressed interest in this idea, in particular because it would be conducive to developing a heat tolerance testing (HTT) protocol that is relevant to the Military population.

d. The passionate clinicians leading this charge are confident that the Heat Center is our best chance to solve the epidemic of HRI at Ft. Benning and elsewhere in a sustainable way. We have an unprecedented opportunity to convene dedicated people in the right place at the right time to finally break the tragedy loop. With the right support, we can redefine readiness regarding hot weather environmental injuries.

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